



Reducing costs with a converged roadway network

Aegean Motorway connects devices across hundreds of kilometers of roadway using Cisco® solutions and the Internet of Everything (IoE) for safe travels.

“With more than 5000 devices, we knew that we needed a strong IT backbone to support our roads.”

- Charalampos Kiorpelidis, Systems and IT Manager, Aegean Motorway

From toll booths to traffic cameras to electronic billboards, major roadways require thousands of devices working together in a unified and automated way to keep drivers safe and roadways running efficiently.

Challenges

- Maintain high levels of safety by improving visibility into road conditions and incident detection
- Reduce operations and maintenance costs across more than 200 kilometers of roadways

Established as a concession company in 2007, Aegean Motorway is responsible for more than 230 kilometers of the PATHE Motorway in central Greece. The company oversees construction, maintenance, operation, and toll collection to provide drivers a safe and smooth drive.

“IT is critical to running our roadways,” says Charalampos Kiorpelidis, systems and IT manager at Aegean Motorway. “Without a strong networking backbone, we cannot monitor traffic, detect incidents, control the motorway and our tunnels, or collect money from tolls.”

As Aegean Motorway took control of its section of the PATHE Motorway, the company quickly realized that it would need a highly reliable, fully redundant IT infrastructure to connect all critical equipment to a central control location. With the IoE—the networked connection of people, process, data, and things—Aegean Motorway can transform its roadways and infrastructure for less congested and safer driving conditions.

Case Study | Aegean Motorway

Size: 500 Employees

Location: Greece

Industry: Transportation



“Most drivers will never notice our IT investment, but our ability to divert traffic, make announcements, or route emergency crews efficiently can save lives,” says Kiorpelidis.

Embracing the Cisco IoT system.

“We didn’t want to worry about risks or failures when drivers’ lives are at stake,” says Kiorpelidis. “We wanted to work with the leader—the one with the best reliability and support. That’s why we chose Cisco.”

Aegean Motorway chose the Cisco Internet of Things (IoT) system and several solutions from the Cisco Connected Roadways portfolio to manage information, systems, and devices, and better connect with drivers and the roads. Critical to ensure the Cisco implementation went smoothly was Cisco Certified Partner Algosystems, along with Space Hellas, a Gold Certified Cisco partner, and Siemens.

Solutions

- Deployed Cisco IoT system with Cisco Industrial Ethernet switches, Cisco Wireless access points, and Cisco Industrial Integrated Services Routers for a reliable network covering the entire roadway
- Access to connected devices from multiple vendors combined into one network
- Enhanced network security with Cisco Identity Services Engine (ISE) and Cisco ASA Next Generation Firewalls



Efficient operations through visibility

Using the Cisco IoT system and Cisco Connected Roadways solution, Aegean Motorway connects all 5000 roadside devices to a central hub for complete visibility into road and traffic conditions.

Cisco Industrial Ethernet 3000 Series Switches are key to high reliability, because they’re designed especially for harsh environmental conditions.

Lower costs for greater scale

The Cisco network flexibly connects solutions from all vendors under one management umbrella. By modernizing the infrastructure, employees can check incoming video or data from their desktops without needing special hardware. This simplifies maintenance and ultimately reduces cost of ownership.

Safer, faster roadways

Aegean Motorway uses data to connect services and drivers, aiming to reduce traffic congestion by 10 percent. If it receives an alert from incident cameras, employees can check on the situation with video, alert emergency services, and change electronic signs to reroute traffic from a single control room.



Results

- Established infrastructure to reduce traffic congestion
- Reduced TCO through converged network
- Connected 5000 devices for unified and central management

Happier driver experience

Drivers are happier with less road congestion and less time in line for tolls. Aegean Motorways optimizes road and system maintenance with a networked system. Systems are secure with Cisco network security solutions.

Delivering a smoother drive

Aegean Motorway plans to expand services, such as Wi-Fi at rest stops, and encourage more efficient communications using Cisco unified collaboration technology.

“With Cisco’s reliable support, we’re building services that help us improve safety and connect people across Greece,” says Kiorpelidis.



Products & Services

<p>Routing and Switching</p> <ul style="list-style-type: none"> • Cisco Industrial Ethernet 3000 Series Switches • Cisco 2800, 2900, and 3900 Series Integrated Services Routers • Cisco Catalyst® 2950, 2960, 3650, 3750, 3850, and 4500 Series Switches <p>Wireless</p> <ul style="list-style-type: none"> • Cisco Wireless Controllers • Cisco Aironet® Access Point <p>Network Management</p> <ul style="list-style-type: none"> • Cisco Prime™ Infrastructure • Cisco Identity Services Engine (ISE) 	<p>Data Center</p> <ul style="list-style-type: none"> • Cisco UCS C220 M4 Rack Server <p>Security</p> <ul style="list-style-type: none"> • Cisco ASA 5500-X Series Next-Generation Firewalls <p>Collaboration</p> <ul style="list-style-type: none"> • Cisco Unified Communication Manager • Cisco Jabber® technology • Cisco Expressway Series • Cisco Unified Contact Center Express
---	---



Americas Headquarters
Cisco Systems, Inc.
San Jose, CA

Asia Pacific Headquarters
Cisco Systems (USA) Pte. Ltd.
Singapore

Europe Headquarters
Cisco Systems International BV Amsterdam,
The Netherlands

Cisco has more than 200 offices worldwide. Addresses, phone numbers, and fax numbers are listed on the Cisco Website at www.cisco.com/go/offices.

Cisco and the Cisco logo are trademarks or registered trademarks of Cisco and/or its affiliates in the U.S. and other countries. To view a list of Cisco trademarks, go to this URL: www.cisco.com/go/trademarks. Third-party trademarks mentioned are the property of their respective owners. The use of the word partner does not imply a partnership relationship between Cisco and any other company. (1110R)

© 2015 Cisco and/or its affiliates. All rights reserved. This document is Cisco Public Information.